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# Wake Up

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## MISSION STATEMENT

American Association of Zoo Keepers, Inc.

The American Association of Zoo Keepers, Inc. exists to advance excellence in the animal keeping profession, foster effective communication beneficial to animal care, support deserving conservation projects, and promote the preservation of our natural resources and animal life.

## ABOUT THE COVER

This month's cover photo features a young Francois' langur (*Trachypithecus francoisi*) taken by Dale McDonald at Cleveland Metroparks Zoo. Francois' langurs are listed as endangered, and range from Southwestern China to northeastern Vietnam. They are known for their distinct white sideburns that grow down from their ears to the corners of their cheeks. They have a complex multi-chamber stomach, specially adapted to digest their folivorous diet.

The population of Francois' langur has been on a steady decline for the past 30 years. Of the many factors threatening the survival of Francois' langur today, poaching has had one of the largest impacts. Another threat to Francois' langur is the destruction of its habitat. Natural predators can include terrestrial predators such as clouded leopards and aerial predators like eagles. The actions being taken towards the conservation of this species and its habitat is still minimal. Its current population size is less than 2,500 individuals. Source: [http://en.wikipedia.org/wiki/Francois%27\\_Langur](http://en.wikipedia.org/wiki/Francois%27_Langur)

Included in this issue is the article "Why Should We Form a Chapter of AAZK?" This article first appeared in the AKF several years ago, but we still get this question from members on a regular basis. If you are at a zoo that doesn't have a Chapter, then this is the perfect article for you. Also, if your zoo already has a Chapter, but you sometimes struggle to explain to new keepers what the actual benefits are of being a Chapter member, you might also find this article helpful.

Articles sent to **Animal Keepers' Forum** will be reviewed by the editorial staff for publication. Articles of a research or technical nature will be submitted to one or more of the zoo professionals who serve as referees for **AKF**. No commitment is made to the author, but an effort will be made to publish articles as soon as possible. Lengthy articles may be separated into monthly installments at the discretion of the Editor. The Editor reserves the right to edit material without consultation unless approval is requested in writing by the author. Materials submitted will not be returned unless accompanied by a stamped, self-addressed, appropriately-sized envelope. Telephone, fax or e-mail contributions of late-breaking news or last-minute insertions are accepted as space allows. Phone (330) 483-1104; FAX (330) 483-1444; e-mail is [shane.good@aazk.org](mailto:shane.good@aazk.org). If you have questions about submission guidelines, please contact the Editor. Submission guidelines are also found at: [aazk.org/akf-submission-guidelines/](http://aazk.org/akf-submission-guidelines/).

Deadline for each regular issue is the 3rd of the preceding month. Dedicated issues may have separate deadline dates and will be noted by the Editor.

Articles printed do not necessarily reflect the opinions of the **AKF** staff or the American Association of Zoo Keepers, Inc. Publication does not indicate endorsement by the Association.

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## FROM THE PRESIDENT

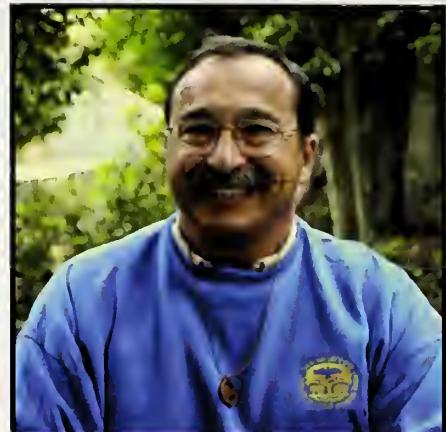
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**"If you really care about starting a movement, have the courage to follow and show others how to follow."**

-Derek Sivers

One of my favorite Ted® talks displays a video of a lone, shirtless and barefooted concert enthusiast dancing on a grassy hillside during a live concert. His style is free-form and can only be described as carefree and without constraint. As he dances to the beat of a different drummer, one can only imagine how he might be perceived by the crowd sitting nearby. Ted® speaker Derek Sivers describes this individual as a “lone nut” who “has the guts to stand out and be ridiculed.” And then shortly after the young man begins his arm-flailing, leg-kicking dance, something happens that changes the dynamics of the scene; someone joins him. The two embrace each other as equals and continue their exercise in free expression.

Sivers narrates, “Now, notice that the leader embraces him as an equal. So, now it's not about the leader anymore; it's about them, plural...Now, if you notice that the first follower is actually an underestimated form of leadership in itself. It takes guts to stand out like that. The first follower is what transforms a lone nut into a leader.”



But the dance-spectacular does not end there. A third person joins them, and then a fourth and fifth and within a minute a dozen more people come rushing to join this dance-spectacular. This, according to Sivers, is the tipping point of the movement; a moment when enough momentum has been gained that it begins to change the perception of the crowd; a paradigm shift of sorts. Within seconds, people are running from all directions to join this crowd just as the momentum tips from a crazy group dancing to the beat of a different drummer to the “in” crowd collectively engaged in a concert.

This example of starting a movement comes to mind whenever I think of Bowling For Rhinos. Not that we are dancing fools in the bowling alley (although, if you have ever seen me bowl, you may disagree), but rather because in 1990, one person took a risk and created an event with the crazy idea that bowling keepers could somehow have an impact on rhino conservation. The Chapter embraced this idea and soon after another Chapter followed, followed by another Chapter, and then another. As more and more Chapters took to the alleys, the momentum of saving rhinos through bowling events was established.

That was 24 years ago and since then, with 70 events each year, AAZK Chapters have raised over \$4.7 million dollars to help save rhinos and their habitat. Back in 2011, when our BFR total was \$280,015, AAZK set their sights on an annual goal of \$500,000. In 2012, we formulated a plan on how to approximate towards that goal. As of this writing, our total for the year is at \$350,000 and still rising. Based on estimates of incoming funds yet received, we may be looking at a \$400,000+ year! And while the tipping point may have been years passed, I dare say that our flagship fundraiser is gaining a renewed momentum. Amassing a total of \$5 million is academic at this point and reaching our annual goal of \$500,000 has become more than just a wishful goal. More planning, more hard work, and more participating Chapters will be the recipe for our success.

What was once the crazy idea of one person has now become a concerted effort that contributes to the conservation efforts of five species of rhinos on two continents, cheetahs in Kenya, and countless other species which inhabit the areas where these horned wonders exist. Keepers now bowl, run, walk, and even dodge balls for rhino conservation!

Is your Chapter a part of this incredible movement? If not, contact Patty Pearnree, BFR National Program Manager at [patty.pearnree@aazk.org](mailto:patty.pearnree@aazk.org). You will be in great company.

As always, I welcome your thoughts and input. E-mail me at [bob.cisneros@aazk.org](mailto:bob.cisneros@aazk.org); I would love to hear from you. And of course, drop me a line, I promise to write back.

Respectfully,

*Bob Cisneros*

### References

“Derek Sivers: How to Start a Movement.” *TED: Ideas worth Spreading*. N.p., n.d. Web. 04 Oct. 2013.  
[http://www.ted.com/talks/derek\\_sivers\\_how\\_to\\_start\\_a\\_movement.html](http://www.ted.com/talks/derek_sivers_how_to_start_a_movement.html)



Post your  
upcoming events  
here - e-mail  
[shane.good@aazk.org](mailto:shane.good@aazk.org)

# COMING EVENTS

**February 5-8, 2014**  
**22<sup>nd</sup> Annual International  
Association of Avian Trainers  
and Educators Conference**  
Dallas, TX 2014: Texas Fly 'Em  
For more information go to:  
[IAATE.org](http://IAATE.org)



**March 10-13, 2014**  
**AZVT (Association Zoo  
Veterinary Technicians)**  
**Focus Group: The Art and  
Science of Hand-Rearing**  
Santa Rosa, CA. The workshop  
concentrates solely on hand-  
rearing of zoo carnivore and  
ungulate species. For details  
contact: Gail Hedberg at  
[ghedberg@safarwest.com](mailto:ghedberg@safarwest.com).



**March 15-19, 2014**  
**Otter Keeper Workshop**  
Denver, CO  
Hosted by Denver Zoo and  
Denver Downtown Aquarium.  
For more information go to:  
[otterkeeperworkshop.org](http://otterkeeperworkshop.org)

**March 22-28, 2014**  
**AZA Mid-Year Meeting**  
Memphis, TN  
For more information go to:  
[AZA.org/midyearmeeting/](http://AZA.org/midyearmeeting/)

**April 13-18, 2014**  
**ABMA's 14th Annual  
Conference**  
Dallas, TX  
For more information go to:  
[theabma.org](http://theabma.org)

**September 8-12, 2014**  
**AAZK National Conference**  
Orlando, FL  
Hosted by  
Disney's Animal Kingdom  
For more information go to:  
[greaterorlandoaazk.org](http://greaterorlandoaazk.org)

**September 12-18, 2014**  
**AZA National Conference**  
Orlando, FL  
Hosted by:  
Disney's Animal Kingdom,  
The Seas, and  
SeaWorld Orlando.  
For more information go to:  
[aza.org](http://aza.org)



**October 6-8, 2014**  
**3rd International  
Flamingo Symposium**  
San Diego, CA  
Hosted by SeaWorld San Diego  
For more information contact  
[laurie.conrad@SeaWorld.com](mailto:laurie.conrad@SeaWorld.com)



# HOPE FOR POLAR BEARS

## AAZK Trees for You and Me!

### Getting Started



Once again, it's time to join Trees For You & Me! Here's how:

**First step:** Read about the 2014 campaign <http://www.polarbearsinternational.org/media/documents/2014-trees-you-me-campaign-faq>

**Second step:** Let us know your Chapter is going to compete. Please send the following to AAC@PolarBearsinternational.org:

- Coordinator's Name
- Chapter Name
- Institution Name
- Phone Number
- E-mail Address

Registration ends **January 1, 2014**, but the competition begins now!

**Third step:** Make a plan around these deadlines:

- Oct 1, 2013 Kick off Trees For You & Me fundraising effort.
- December 31, 2013 Report funds raised at the official half-way mark.
- January 1, 2014 It's not too late to sign up for the spring final challenge!
- March 3, 2014 Report funds raised as of March 1 at midnight MDT.
- November 1, 2014 Complete local planting or donation and report to PBI on My Planet, My Part.

Here are some fundraising ideas:

Bake sales, polar plunges, Putting for Polar Bears miniature golf events, garage sales, silent auctions, fun runs, spaghetti dinners, car washes, recycling programs (for ink cartridges, toners, digital cameras, and cell phones), animal-art sales, Pennies for Polar Bears drives, raffles, concerts ... The sky's the limit!

Our advice: Keep it simple, make a list, break big projects down into manageable steps, delegate the workload, and have touch-base meetings to see how everyone is doing on their tasks.

**Fourth step:** Follow AAZK policies for reporting, just like for Bowling for Rhinos in the re-chartering packet.

**Fifth step:** Be creative and have fun!

To provide you with an incentive, we will award a shrub to the Chapter raising the most money by December 31, 2014. As for the grand prize—the leading Chapter on March 1 will win a living, breathing tree!

Plant a tree. Help a polar bear. It's as simple as that!

Christy Mazrimas-Ott | [christy.mazrimas-ott@aazk.org](mailto:christy.mazrimas-ott@aazk.org) | AAZK Trees for You & Me Chair

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## Jim Haigwood Wins Honorary Lewa Trip

Bowling for Rhinos is AAZK's biggest conservation effort. There are a number of people that are the true heroes in making AAZK's "Bowling For Rhinos" successful. Year after year, they tirelessly organize their event with little recognition. Their reward is in knowing that they are helping to conserve wildlife worldwide.

In 2007, AAZK, Lewa and Anna Merz began recognizing these dedicated members by rewarding them with a chance to see firsthand the results of their dedication. Lewa will host an individual and a companion, if they wish, for one week at Lewa Wildlife Conservancy in Kenya.

The 2013 honorary trip winner is Jim Haigwood of the Los Angeles Zoo. Below is the nomination letter from his co-workers:

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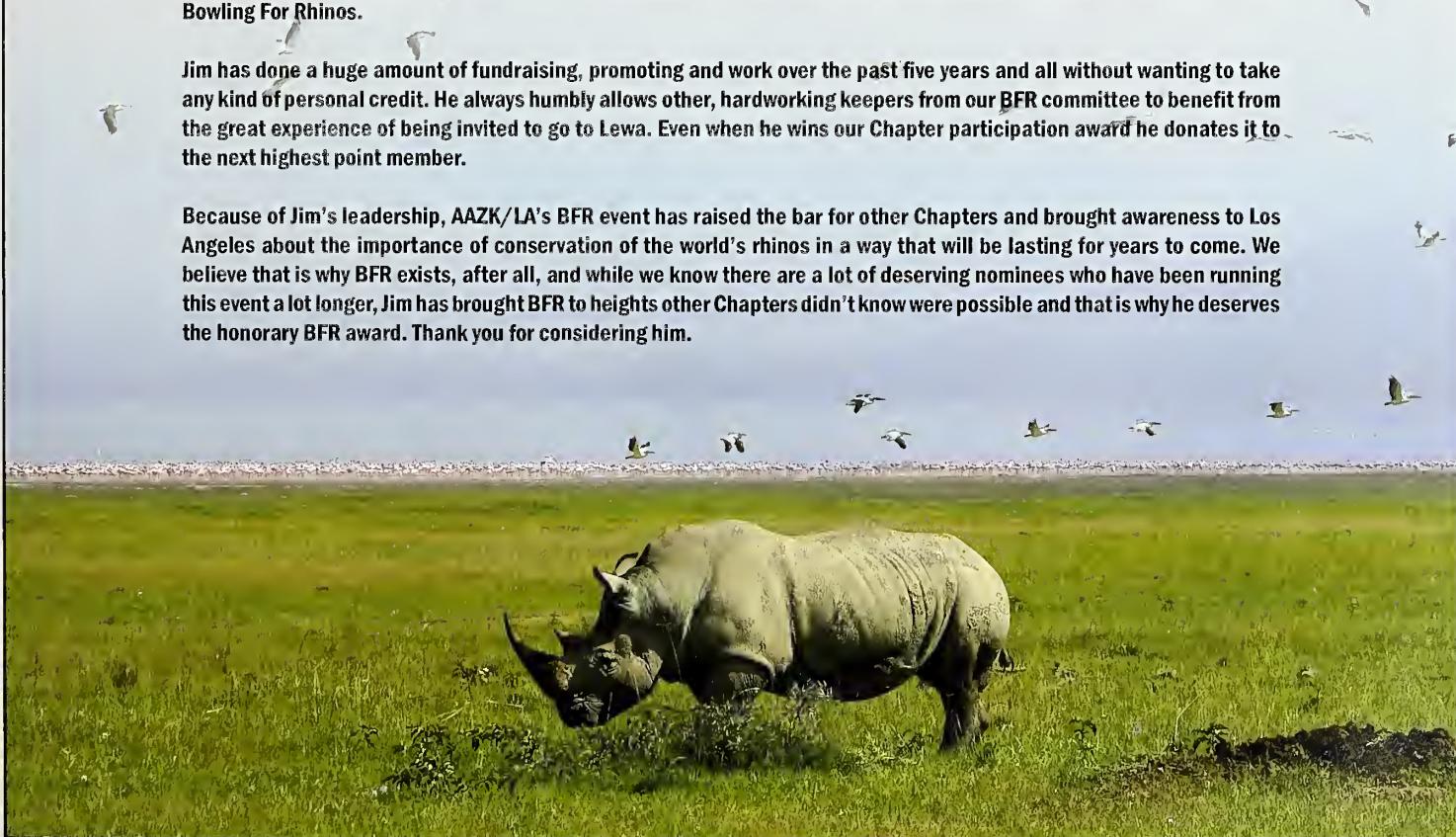
**We would like to nominate Jim Haigwood of the Los Angeles Chapter of the American Association Zoo Keepers for the honorary BFR award and trip. Jim was the driving force behind bringing our AAZK Chapter back to life in 2007 and he has continually been the strongest voice for our Chapter in all matters, especially BFR. His passion for this event is contagious and has inspired our small group (we have always had an average Chapter membership of 25 people) to go above and beyond with each BFR event.**

**Jim started our first event in 2009, resulting in \$30,100.00 raised; an impressive beginning. Since then we have pushed each year raising no less than \$30,000 each year, with the resulting total of \$127,600 in four years. Although the numbers are not final yet for this, our fifth year, we will easily push that total over the edge to \$163,600.00, more than any Chapter has raised in as much time. In our opinion none of this would have happened without Jim.**

**Some have said we attain these high numbers because we have "huge donors" or "celebrity/media support". The truth is we accomplish this each and every year because of a core dedicated group of about 12 keepers, led by Jim. Who needs media, celebrity backing, or major zoo board/administrative support when you have a leader like Jim? His drive, determination, and down-right passion for BFR rubs off onto all of us. The truth is our numbers are high because we begin holding meetings, organizing and fundraising six months in advance of our actual event. In addition, Jim regularly gives a powerpoint presentation about the status of rhinoceros in the wild as a way to remind donors why we support Lewa with Bowling For Rhinos.**

**Jim has done a huge amount of fundraising, promoting and work over the past five years and all without wanting to take any kind of personal credit. He always humbly allows other, hardworking keepers from our BFR committee to benefit from the great experience of being invited to go to Lewa. Even when he wins our Chapter participation award he donates it to the next highest point member.**

**Because of Jim's leadership, AAZK/LA's BFR event has raised the bar for other Chapters and brought awareness to Los Angeles about the importance of conservation of the world's rhinos in a way that will be lasting for years to come. We believe that is why BFR exists, after all, and while we know there are a lot of deserving nominees who have been running this event a lot longer, Jim has brought BFR to heights other Chapters didn't know were possible and that is why he deserves the honorary BFR award. Thank you for considering him.**



# Double-Duty Daddy Daycare

## When a male siamang raises twins

**Audra Emberton, Pilar Hicks, Mary Lueder**  
Primate Keepers, Disney's Animal Kingdom®  
Presented at the 1<sup>st</sup> International Gibbon Conference  
Greensboro, NC • June 5, 2012



**Violet and Veruca in the exhibit age  
1.5 years old. Photo by author.**

In the fall of 2011, animal care staff at Disney's Animal Kingdom® (DAK) was faced with rearing infant twin siamangs (*Sympthalangus syndactylus*) rejected by their dam. Knowing the effects of hand-rearing primates, the team focused on returning the infants to a conspecific as soon as possible. This paper will highlight the management strategies used by DAK staff, including the use of siamang natural history and past successes to reintroduce the infants back into a social group.

Prior to the infants' birth, the siamang group at DAK consisted of an adult male, Kenny; an adult female, Penny; and their 3½-year-old female offspring, Bahiyah. The group was housed on an island habitat surrounded by a water moat with access

to two freestanding towers. Penny was born in 1978 and was parent-reared by wild-caught parents. She had given birth to five previous offspring, including two previous sets of twins. The specifics of her rearing history are unknown, however circumstances necessitated the hand-rearing of most of her previous offspring. While she successfully reared the 3½-year-old at DAK, she demonstrated an unconventional style that involved peeling the infant off at regular intervals before repositioning her on her body. Kenny was born in 1974 and was also parent-reared by wild-caught parents. Prior to his arrival at DAK, he sired two male offspring. These infants were hand-reared due to lack of maternal care, and his reaction to the infants is unknown. In 2003, he sired a male offspring at

DAK while paired with a different female. The infant, who was delivered via Caesarian section, was removed temporarily for hand-rearing after being rejected by his mother. Since male siamangs are known to participate in infant care, we decided to separate Kenny from his mate and introduce the infant to him (Emberton et al. 2006). Kenny was trained to bring the infant to the mesh front for feedings and assumed all other rearing responsibilities. Because the previous dam was unable to be reintegrated into the group due to persistent aggression, the father-son pair remained intact until the son was transferred to another institution in 2008. Kenny was paired with his current mate, Penny, in 2006, producing Bahiyah in 2007. In the spring of 2011, it was confirmed via ultrasound that Penny was pregnant. Due to her history and some suspicious ultrasound images, the veterinarian strongly suspected she was pregnant with twins. On the morning of September 1<sup>st</sup>, keepers arrived to find two female infants, Veruca and Violet, on the ground in the holding area. After veterinarians assessed both infants and deemed them healthy, two introduction attempts occurred.

The first introduction took place with both infants in one room with Kenny and Penny, while Bahiyah was separated in an adjacent room. Since the adults were more focused on each other and only looked at the infants, Bahiyah was shifted into the outdoor exhibit without visual contact, and each adult was given a chance to pick up one infant. Neither adult approached the infants at this time. Veruca was more vocal during the first introduction attempt. Violet was less vocal and fell asleep during the first introduction. The Primate Team felt that it would be better for Veruca to be reared by Penny due to Veruca's higher activity level. During the second introduction Penny immediately came down to Veruca, pressed her chest to her and allowed her to cling. Veruca fell off a couple of times, but each time Penny bent down allowing Veruca to cling. Within a couple of minutes, she was observed appropriately grooming and cleaning Veruca. Nursing was observed later in the day. Based on Kenny's behavior while rearing

his previous male offspring, keepers believed the best chance of enabling him to carry Violet was to place her on his chest. Keepers were able to place Violet on Kenny's chest through a panel in the mesh, but after a couple of minutes, he delicately peeled her off. At this point, she was removed from the stall. Later in the day, her condition deteriorated due to low glucose values and eventually jaundice set in. She remained in hand to stabilize her condition while the Primate Team determined the best course of action for future introductions.

### Hand-rearing Strategy

Keepers identified long-term goals for Violet and immediately implemented strategies to achieve them. Getting her consistently drinking from the bottle, cue training, learning to cling, and teaching her to take bottles from different mesh sizes were considered the highest priorities. Violet would frequently spit up her formula and had a poor sucking technique. Keepers

experimented with different bottles and formulas to optimize feeding success without intestinal distress and to more accurately assess her consumption. An audio cue was implemented to signal Violet to bottle feedings. To promote proper siamang positioning, Violet was kept on a keeper at all times in a clinging position. Keepers walked in a swaying motion to simulate the movement of siamangs. In order to train Violet to take a bottle through the mesh, keepers attached a panel of small mesh to an upright frame. Keepers would sit with Violet on one side of the panel and hold the bottle on the other side, with the nipple sticking through the mesh. They would then encourage Violet to move towards the bottle from her clinging position on the keeper. Because the mesh size was different at each building, different bottles would need to be used. (The siamang building had small mesh which would only allow a nipple through, while the off-exhibit holding area had larger mesh allowing a bottle extender (Fig. 1). To feed Violet through the larger mesh keepers used the same technique with the bottle extender. Other strength training exercises were performed daily to further her developmental capabilities. Toys were always accessible as well, which encouraged her sensory development with different colors, textures, and sounds. To promote further siamang socialization, Violet was taken to the siamang building 1-2 times per day. This allowed visual and limited tactile interactions for all animals in preparation of another introduction.



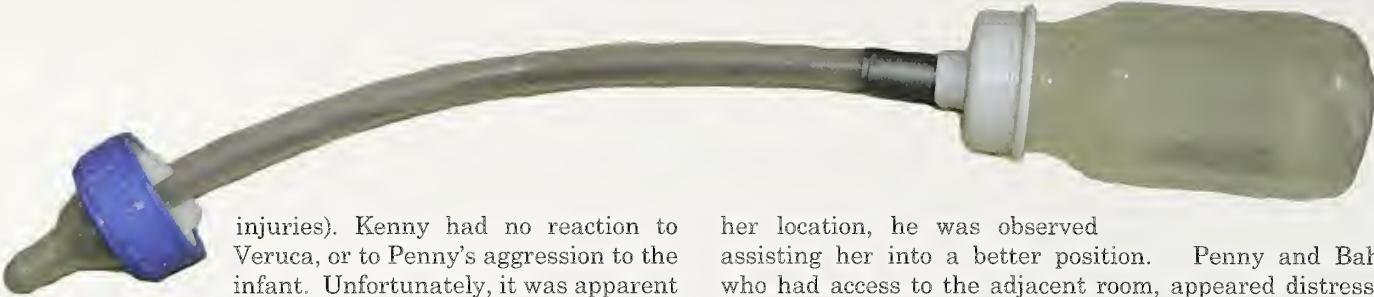
Kenny, Violet and Veruca twins  
age 2 months. Photo by author.

At approximately five weeks, Violet was strong enough to attempt an introduction to Kenny, Penny, and Veruca. Due to behaviors the Primate Team was observing between Bahiyah and Veruca, such as Bahiyah pulling on Veruca's limbs, the decision was made to introduce Violet without Bahiyah present, with the intention of reintroducing her once Violet was established within the group. Once Violet was placed in the holding area with the siamangs, Kenny showed the most interest in her by coming and sitting next to her, but he moved away when she crawled toward or made contact with him. Keepers then attempted to place Violet on

Kenny's abdomen through a mesh panel, but Kenny evaded these attempts. Penny and Veruca were periodically given access to Violet during these introduction attempts, but Penny ignored Violet, possibly due to her already carrying Veruca. The introduction attempts ended and Violet returned to keepers' care while Kenny, Penny, Veruca, and Bahiyah were reunited.

### Two in hand

After these introduction attempts, another challenge was presented to the Primate Team: Bahiyah pulled Veruca off of Penny and dropped her into the water moat surrounding their exhibit. Veruca was quickly retrieved without injury. Reintroductions of Veruca to the siamang group began on the same day, immediately after Veruca was cleared by the veterinarian staff. Reintroducing Veruca to the siamangs proved to be difficult. Penny continuously showed aggression towards Veruca by mouthing and throwing her (without



injuries). Kenny had no reaction to Veruca, or to Penny's aggression to the infant. Unfortunately, it was apparent that Penny would not accept Veruca.

Veruca was now in hand with Violet. Veruca's daily care was similar to Violet's. The previously mentioned feeding and strength training exercises and bottle work were also used with Veruca. Even though Veruca had been in the care of siamangs for only a brief amount of time, the difference in rearing was very apparent. Keepers noticed that Veruca had stronger arms and clinging ability, while Violet had stronger legs and stronger arm strength when hanging vertical. They both had great interest in each other; Violet was especially interested in Veruca. Veruca began sucking her thumb within days of being with keepers. This was considered a comfort behavior. To allow for better communication, a core group of keepers was assigned to infant care. Initially, one keeper was caring for both infants each day, but within a week it became obvious that two keepers were needed to properly care for the infants during the day. This would ensure that the infants would not impact each other's feedings or interfere with each others' clinging abilities by grabbing onto each other. This also gave keepers more time to devote to each individual's strength training exercises. No exercises were performed at night, allowing the infants to sleep. Visual socialization to the siamang group continued with both infants. The reactions of the siamangs towards the infants varied daily, ranging from no interest to licking and trying to touch them. Infant safety was assured by only allowing tactile contact through one by one mesh as a keeper held them.

## Introductions

The Primate Team felt that because Veruca had previous siamang rearing, she was the priority to get back with the group. Since Kenny was a calm animal and had been a surrogate before, the team felt he was the best option for reintroducing an infant to the group. In 2003, the actual transfer of the male infant to Kenny occurred through a panel in the mesh room. We attempted this with Violet and Veruca but were unsuccessful. However, in the 2003 situation, keepers did go in with Kenny to feed the infant the first day via the bottle extender. So from this experience, our plan was formed. A keeper would enter the stall with Kenny while carrying Veruca. We do not propose that other institutions go into stalls with their siamangs, however, we knew this male's behavior and temperament. Over the course of four days, a keeper gradually moved Veruca closer to Kenny while he received verbal and diet reinforcement. Veruca was placed on a plush toy which was held by the keeper in order to keep her calm and aid in her eventual transfer. On the day of the transfer, Veruca was gradually placed near Kenny so that if she moved she would grab onto him. Veruca slowly positioned herself onto Kenny so they were in a ventral/ventral position, and although Kenny appeared slightly uneasy with

her location, he was observed assisting her into a better position. Penny and Bahiyah, who had access to the adjacent room, appeared distressed by Kenny's new companion. They were shifted outside and kept separate from him allowing him to bond with Veruca. All of the siamangs performed their territorial call on and off for the remainder of the day. Kenny did not bring Veruca to the mesh for feedings but did allow a keeper to enter the stall and feed her via a bottle extender. Violet was moved to the building where Kenny and Veruca were being housed so that they could have visual contact. Keeper staff did not enter the stall with the siamangs after this first day as he began to bring her up to the mesh for feedings.

After two days, Kenny with Veruca, and Violet were moved to an off-exhibit holding area due to limited space in the siamang holding area as well as Penny's continued displays. By moving

Kenny and the infants, we felt that Kenny could focus more on Veruca and Penny and Bahiyah would be less stressed. Kenny would bring Veruca to the mesh for her bottle and was reinforced for allowing Veruca to feed. While on Kenny, Veruca was fed with a bottle extender because he would not always move close enough to the front of the

mesh. Appropriate behavior was often seen--Kenny grooming Veruca, and repositioning her when needed. He was also heard vocalizing to her if she vocalized. She clung well, and consumed more formula while on Kenny than she did with keepers.

The team's next goal was to get Violet more mobile and independent as quickly as possible to allow her to spend time on her own with Kenny and Veruca. A play gym was added to a stall that Kenny and Veruca had access to. The goal was to have Violet play on this gym in proximity to Kenny and Veruca. On the first attempt, a keeper went into the stall with Violet while Kenny and Veruca were shifted into the room. After approximately five minutes of moving back and forth between Violet and an overhead mesh tunnel, Kenny with Veruca sat next to the keeper. Kenny and Violet reached towards each other while the twins looked at each other intently. Because Kenny and Violet were showing mutual interest, the decision was made to place Violet on Kenny alongside Veruca. Kenny had no reaction to Violet being placed on him. As he climbed to the tunnel, Violet inadvertently grabbed the mesh causing her to become unstable. Kenny reached down to help position her on his chest, and carried both infants to the tunnel. They were

Days	Infant Rearing Status
1-37	Violet in hand, Veruca with group
38-56	Both in hand
57-62	Violet in hand, Veruca with Kenny
63-present	Violet with Kenny and Veruca

secured into the tunnel to allow for bonding and ease of bottle feeding. Table 1 represents the rearing status of the infants from day 1 until day 63 when both infants were with Kenny.

Initially, Violet's interest in the keepers was strong, but over the course of a week, her interest waned. Violet was periodically observed clinging fully to the mesh and vocalizing. Keepers would help re-orient her by peeling her hands and feet off the mesh and directing her towards Kenny. Each time, she would crawl towards Kenny and Veruca. Kenny did move away from Violet a couple of times when she was on the mesh, but he was observed reaching his arm towards her and vocalizing at her. This moving away behavior lessened as their bond strengthened and Kenny's comfort level increased.

Over the course of the next few days, Violet would vocalize when she was hungry; this would cause Veruca to vocalize and want to eat as well. Due to the logistics of feeding two infants at once, keepers chose to feed one infant at a time. Because Violet was more demanding, vocal, and likely to come to the mesh and move towards the bottle, keepers would feed her first. Once she was satiated, she would transfer back to Kenny, allowing Veruca to eat. For the most part, Kenny would actively allow the infants to eat while he was being reinforced with preferred diet. If he wasn't being cooperative, he would move away from the keeper or push the bottle away. This caused the infants to vocalize louder, which encouraged Kenny to sit for feedings. Occasionally, Violet would not transfer back to him after feedings. Keepers would re-orient her towards Kenny who would assist in the transfer.



Kenny Violet and Veruca on exhibit twins age 1.5yrs.  
Photo by author.

Play sessions between Kenny and the twins began within a couple of days of the group introduction and play sessions among the infants began a few days later. Kenny was also observed grooming both girls on a regular basis. Violet began sucking on Kenny's throat sac for pacification purposes after approximately three weeks. Because of this behavior, she was not heard vocalizing when hungry as much as previously. Veruca continued to suck her thumb while on Kenny, rarely vocalizing when hungry.

Trying to get the infants on the same feeding schedule was a challenge, but was desirable to simplify their care. Veruca could go longer without eating, most likely due to her thumb sucking. Conversely, Violet would vocalize every few hours when hungry. Once the twins reached ten weeks of age, the veterinarians were comfortable with the infants going up to ten hours between bottles. This allowed keepers to feed both infants on a more uniform schedule. Feeding times and amounts varied based on infant participation and consumption levels. With these guidelines, the infants were on the same feeding schedule by 14 weeks of age. At around nine weeks of age, the infants had started mouthing and consuming minute quantities of Kenny's diet. They were offered chow mixed with formula to form a mush, however, they did not find this palatable, even when mixed with banana or sweet potato. They continued to consume small parts of Kenny's diet until mid-January 2012, at approximately 19 weeks of age, when they were each presented with 10% of an adult siamang's diet. This amount continued to increase as their consumption of solid food items increased, correlating with a decrease in formula consumption. The last night feed was removed in March 2012 due to increased consumption of formula and solid food items during the day.

Over time, both infants began brachiating and moving from room to room independently. As the twins have grown, Violet has become the dominant infant and is often observed displacing or threatening Veruca. Play amongst the entire group continues on a daily basis. They groom each other daily and the twins seek comfort from Kenny during times of distress.

Ideally an adult female would be added to the trio in order to best mimic a family group. There are certain behaviors we must see from the infants before doing an introduction. These include an increase in brachiation, ability to maneuver at high speeds, and a flight response to Kenny when frightened. We also want the infants weaned prior to another introduction. Nevertheless, we currently have two infants being cared for by a siamang, which means that they are experiencing socialization by a conspecific instead of being hand-reared. We hope that the eventual introduction of an adult female siamang will give the twins a more typical upbringing, and will allow them to see normal behaviors of a bonded pair. In the meantime, they are healthy and their livelihood has vastly improved since their introduction to their father. For questions, contact [pilar.m.hicks@disney.com](mailto:pilar.m.hicks@disney.com)

### Acknowledgements

It takes a village to raise twins. Thanks to the Primate Team, Primate Managers, the Veterinarian Staff as well as numerous others that contributed to this successful introduction.

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Valentino pauses for a refreshing drink from the freshwater pond in his enclosure  
Photo courtesy of Cosley Zoo in Wheaton



## Conservation Needs: An Examination of Public Perception

Brande Redfield,  
Zoology Graduate Student  
Miami University at Brookfield Zoo  
Brookfield, Illinois

Wild cats, with their deadly grace, beauty, and mystique, have captivated humanity for generations. Since our first interactions with felids some seven million years ago, cats have been at times our adversaries, our occasional meals, and often our best friends. At present there are 37 species of cats found across the world, from the majestic and ice covered mountain slopes of Tibet to the arid deserts of Africa. Some species of cats, such as mountain lions and bobcats, can even be found in our own backyards in the United States.

Our story takes place at Cosley Zoo, a small AZA-accredited public zoo, opened in the far western Chicago suburb of Wheaton, Illinois in 1974. Cosley's animal collection focuses upon animals native to the state of Illinois and domestic farm animals, and over the years their reputation for excellence in animal care and guest education has garnered a great deal of public support. With 200 animals



and over 70 species represented in their collection, however, Cosley was still missing one important component: a cat species. But that was all about to change. After much planning, preparation, and the building of a beautiful new enclosure, Cosley Zoo was ready to add bobcats to its collection! In September of 2012, Cosley proudly acquired two magnificent male bobcats (*Lynx rufus*), brothers named Salvatore and Valentino ("Sal" & "Val"), to much fanfare and public excitement.

As a zoology graduate student focusing my thesis work on wild cats, I was delighted to be accepted on as an animal care (keeper) volunteer with the Cosley staff at this exciting time. One component of wild cat conservation that is of particular interest to me is the public's knowledge (or lack thereof) of small wild cat species as opposed to their larger and more "famous" large cat relatives (lion, tiger, jaguar, leopard, snow leopard, puma, and cheetah). With

this lack of knowledge comes a lack of funding for conservation efforts and a lack of public support, even though many smaller cat species desperately need our help. Most of us have heard of the plights facing tigers and amur leopards, but how many of us know how dire the situation is for fishing cats, also endangered? The public will rally behind sad stories of the poaching of lions and tigers, but tales of the Iberian lynx nearing extinction do not make headlines on the news stations. This popularity of large cats over small cats is echoed in the research realm – small cats have rarely been studied in the wild, and some species not at all. It was this dynamic that I wished to examine while at Cosley, especially considering the increased local public interest in wild cats due to their new exhibit. So, with Cosley's support and assistance I set about creating a set of surveys and observations to gauge the public's knowledge and support of wild



known about and minimal research effort is done on behalf of most small cat species. Large cats, however, dominate the news and images on conservation sites. These cats are very beautiful and charismatic, and children grow up knowing and loving cats such as lions and tigers. Public knowledge and support for these animals are very strong. What I did not imagine was just how true this would be!

promoting awareness of small felids? There is clearly a lack of knowledge of small cat species as compared to large cats, as anticipated, but the public does desire this information. There appears to be a breakdown between the researchers and conservationists in the field, and how this information is then being relayed to the public. The public needs to be further connected to opportunities where they can help,

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As predicted, the general public was more aware of large cats than small, with 92.2% of guests being able to name a large cat species while only 86.4% could name a small cat species (and most of those answers as expected were "bobcat," showing that what the public did know was likely learned from Cosley's exhibit). The public was much more aware of foreign cat species than those species found in the U.S. – 100% could name a non-native cat species, but only 79.6% could name a native species. The most interesting issue of all, however, was raised by the answers collected for the conservation-based questions. 66% of respondents answered 'No' when asked if they were aware of any wild cat conservation programs. And a shocking 100% of respondents answered 'I am concerned, but uncertain how to help' when asked what their reaction to the conservation crisis is. Clearly, this demonstrates that word-of-mouth and marketing campaigns for wild cat conservation programs have not yet effectively reached the general public, and that there is a need for such education. The public claims to have a strong desire to support such programs, but simply does not know how to do so.

The goal of this study was to bring to light the public's perceptions of the different cat species and its support for the conservation efforts of these species. The study also serves to highlight shortcomings in the current state of conservation for small cat species, and to demonstrate where we can best increase our efforts to maximize our impact for the benefit of felids both small and large. So, what do the findings mean to researchers and conservationists interested in

and this in turn will aid in producing desperately needed funds to support further research. Zoos and zoo staff can help to educate the public about such programs or opportunities, and serve as a catalyst in order to motivate guests to become more involved.

A next step for those who are not experts or researchers in the field would be to simply help spread the word on what the public can do to help. There are ample organizations out there to support large cat conservation efforts, but only a few to support small cats. Increasing donations and volunteer efforts for these organizations, or even just promoting them through websites, flyers, or word-of-mouth will make a tremendous difference. If we all work together, we can make a tremendous difference for our feline friends. 

**Salvatore and Valentino  
in their enclosure, Cosley Zoo  
Photo courtesy of  
Cosley Zoo in Wheaton, IL**





Valentino pauses for a refreshing drink from the freshwater pond in his enclosure  
Photo courtesy of Cosley Zoo in Wheaton

# WILD cat

## Conservation Needs: An Examination of Public Perception

Brande Redfield,  
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Miami University at Brookfield Zoo  
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Wild cats, with their deadly grace, beauty, and mystique, have captivated humanity for generations. Since our first interactions with felids some seven million years ago, cats have been at times our adversaries, our occasional meals, and often our best friends. At present there are 37 species of cats found across the world, from the majestic and ice covered mountain slopes of Tibet to the arid deserts of Africa. Some species of cats, such as mountain lions and bobcats, can even be found in our own backyards in the United States.

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and over 70 species represented in their collection, however, Cosley was still missing one important component: a cat species. But that was all about to change. After much planning, preparation, and the building of a beautiful new enclosure, Cosley Zoo was ready to add bobcats to its collection! In September of 2012, Cosley proudly acquired two magnificent male bobcats (*Lynx rufus*), brothers named Salvatore and Valentino ("Sal" & "Val"), to much fanfare and public excitement.

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this lack of knowledge comes a lack of funding for conservation efforts and a lack of public support, even though many smaller cat species desperately need our help. Most of us have heard of the plights facing tigers and amur leopards, but how many of us know how dire the situation is for fishing cats, also endangered? The public will rally behind sad stories of the poaching of lions and tigers, but tales of the Iberian lynx nearing extinction do not make headlines on the news stations. This popularity of large cats over small cats is echoed in the research realm – small cats have rarely been studied in the wild, and some species not at all. It was this dynamic that I wished to examine while at Cosley, especially considering the increased local public interest in wild cats due to their new exhibit. So, with Cosley's support and assistance I set about creating a set of surveys and observations to gauge the public's knowledge and support of wild

cat needs. I chose to examine not only the difference between their knowledge of small wild cats and large wild cats but also their knowledge of native versus non-native cat species.

During the fall and winter of 2012, I collected data examining guest knowledge of wild cat species (small and large; native and non-native), and guest attitudes, beliefs and actions regarding wild cat conservation. Could guests name cat species in each category? What were their thoughts on the importance of cat conservation efforts? Were they aware of any cat conservation groups? Were they actively trying to make a difference in this area? It was hypothesized that zoo-going guests would have a much greater knowledge and support of large wild cat species' conservation needs and efforts. In my own perusal of the subject matter available, it seemed clear that even though small cat species outnumber large cat species more than 2:1, very little is

known about and minimal research effort is done on behalf of most small cat species. Large cats, however, dominate the news and images on conservation sites. These cats are very beautiful and charismatic, and children grow up knowing and loving cats such as lions and tigers. Public knowledge and support for these animals are very strong. What I did not imagine was just how true this would be!

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**Salvatore and Valentino  
in their enclosure, Cosley Zoo  
Photo courtesy of  
Cosley Zoo in Wheaton, IL**





# Using a Produce Rotation Schedule to Increase Variety in Animal Diets

*Brooke Stowell, Commissary Supervisor  
Fort Wayne Children's Zoo, Fort Wayne, Indiana*

## While working in a zoo commissary,

some of the complaints I have heard the most include, "lemurs got sweet potatoes yesterday" or "rabbits just had apples." Due to how many diets are made in one day, it is hard to remember exactly what was given to each animal that receives a variety or irregular pattern of produce in their diet. In a kitchen setting with multiple people or a rotating staff it is even harder to keep track of what is given over the course of a week. By using a set rotation schedule, the animals can benefit from a variety of produce that can be achieved in a simple and easy way.

Over the course of my zoo career I have worked in two very different zoo kitchens. In the first kitchen, there was a single commissary keeper who made the collection's diets each day. In this setup, a primary commissary keeper made the diets four to five days a week and a relief keeper filled in the other two to three days. There were no records kept to determine what was fed the day before. This would lead to people using the ingredients that were on the table in front of them or going for the options that are easy to prepare like frozen mixed vegetables or blueberries. Another problem with open-ended choices are keepers tend to give their favorite items, not what is best or the animal's favorite. Therefore, it was possible for the animal to receive the same item for multiple consecutive days.

The second kitchen I worked in was transitioning from keepers preparing diets to a full-time commissary staff. Once the transition was complete there would be two to three commissary technicians each day preparing the collection's diets. When I was trained to take over diets from the individual keepers, they all kept records of what was fed in each individual diet. Each species had a separate page, and what

they received for produce in the AM and PM was recorded. Though this system prevented offering the same produce item over consecutive days, it was time-consuming because you had to look back to see what was fed the previous days and then record for each species what was given.

After the transition to a full-time commissary staff was completed, a proposal to create a produce rotation schedule was developed. Some at first thought that the rotation list would limit or decrease the variety that was offered, but in actuality with the rotation, the animals are guaranteed to get different items each day of the week.

Although the rotation is set, there is still variety built in. On Mondays when melon is used, the individual technician can choose from cantaloupe, honeydew, or watermelon. Also, on Thursdays when berries are used, one can choose from strawberries, blueberries, raspberries, or blackberries. Additionally, there is a seasonal fruit day on Sundays in which peaches, nectarines, plums, or cherries can be chosen. These choices lead to additional variety for the animals. This also allows for items to be used when they are available but keepers are not constrained by the rotation chart when items are out of season. There is also variation built in to the starchy vegetable column by having several choices of squash to choose from in addition to the choice between beets and parsnips (Figure 1).

At the Fort Wayne Children's Zoo the produce rotation schedule has been easily integrated into a variety of diets. Currently it is used in an assortment of primate and bird diets. Not all diets include each column, but based on the diet we can utilize the columns needed. Below is an example of how the produce rotation shows up on the species' diet pages (Figure 2).

There are further benefits gained from using the produce rotation schedule. It aids in efficiency in diet prep. The items needed for diet prep are already decided based on the day of the week so those items can be pulled out of the fridge leaving unneeded items in the fridge. This can also reduce the number

#### AM Diet:

Ingredient	Amt Fed	Units	Preparation	Feeding Frequency
Fruit 1 rotation item	256	g	cut into varying sizes; see separate rotation list	daily
Fruit 2 rotation item	256	g	cut into varying sizes; see separate rotation list	daily
Citrus Fruit rotation item	454	g	cut into varying sizes; see separate rotation list	daily
Carrot, fresh	300	g	cut into varying sizes	daily
Banana, fresh	125	g	fed whole	daily
Starchy Veggie rotation item	337	g	cut into varying sizes; see separate rotation list	daily
Greens rotation item	1034	g	fed whole; see separate rotation list	daily
Vegetable rotation item	128	g	break into large pieces; see separate rotation list	daily

Figure 2: Sample Diet Page

of trips in and out of the fridge because there is less chance that something was forgotten. A further benefit to having a set rotation is it makes inventory and ordering easier because you know what you have to have and how much on certain days of the week. An additional bonus to using the produce schedule is it allows for the diet to be nutritionally analyzed using programs such as Zootrition™ because the rotation can be entered as a custom ingredient and incorporated into multiple diets within the program.

As a commissary employee I no longer hear complaints that the animals are receiving the same items over consecutive days. The rotation schedule has also cut down on additional paperwork, reducing work and wasted paper. The added benefit of being able to nutritionally analyze each animal's diet has led to more balanced nutrition for our collection. The produce rotation schedule has been a great new addition to the Fort Wayne Children's Zoo and could be a great addition to your kitchen.

#### FWCZ Produce Rotation List

	Fruit 1	Fruit 2 (iron sensitive)	Citrus Fruit	Starchy Veggie	Vegetable (non starchy)	Greens
Monday	Melon <sup>1</sup>	Pear	Orange	Sweet Potato (raw)	Cucumber	Spinach
Tuesday	Apple	Mango	Lemon	Squash (acorn, butternut, spaghetti)	Celery	Kale
Wednesday	Pear	Papaya	Orange	Turnips	Broccoli	Turnip
Thursday	Pineapple	Berries <sup>2</sup>	Orange	Corn (frozen or on cob)	Green Beans	Dandelion
Friday	Kiwi	Banana	Grape-fruit	Carrots (raw)	Green Pepper	Collard
Saturday	Grapes	Apple	Orange	Sweet Potato (raw)	Mixed Veggies	Mustard
Sunday	Banana	Seasonal Fruit <sup>3</sup>	Orange	Beets or Parsnip	Tomato	Romaine

Figure 1: Produce Rotation Schedule

\*Note: If an item is not available, it can be substituted with any item within the same column.

1. Types of approved melons include: cantaloupe, honeydew, and watermelon.

2. Types of approved berries include: strawberries, blueberries, raspberries, and blackberries (all fresh, not frozen).

3. Types of approved seasonal fruits include: peaches, plums, and cherries (all fresh, not frozen).





## WHEEZY



# Tulsa Zoo's Cape Buffalo "Wheezy" Believed to Be Oldest Recorded at 31

Eric Flossie, Zoo Keeper | Tulsa Zoo | Tulsa, Oklahoma

Way back on Sept. 24, 1982, when I was only three-years-old, a female Cape Buffalo was born at Kings Island Wild Animal Habitat in Ohio. The animal habitat at Kings Island has long since closed. Wheezy has lived on at the Tulsa Zoo, becoming what may be the oldest Cape Buffalo on record in the world.

A little more about Wheezy's background: From Ohio, Wheezy was sent to Illinois, where she went to a place called the Little Ponderosa Farm. This is where the Tulsa Zoo and Wheezy found each other. In 1987, the Tulsa Zoo was looking for a female Cape Buffalo to breed with our bull. Wheezy was at a perfect breeding age and was sent to pair up with our eligible bachelor, Idi Amin. Wheezy and Idi welcomed their first calf a year later. Wheezy went on to have 15 calves.

My story with Wheezy begins in 2001

when I was hired to work as a zoo keeper in the Tulsa Zoo's large mammal department. I learned quickly to see Wheezy as a fiercely protective mom. She scared the pants off many keepers, including myself, by getting her head and front legs over stall walls during neonatal exams in an effort to get her baby back. Or while cleaning an adjacent stall, she would slam boards hard enough to splinter, making my heart race.

Wheezy's last calf was born in 2003. It was a female named Edie after her dad because she was born months after he had passed away. Mother and daughter would stay together up until 2010, when it was decided that the Tulsa Zoo would phase out Cape Buffalo from the master plan. Edie went to San Diego's Safari Park. Wheezy remained at the Tulsa Zoo because of her advanced age, 28 at the time. We feared she might not deal well

with the stress of transportation or to the adjustment to a new home.

It was now time to see how Wheezy would handle retirement. Her demeanor has mellowed considerably since she is no longer in protective mom mode. Keepers are able to apply fly spray to her whole body and scratch above her horns, neck and behind her fabulous ears.

She developed a routine of hanging out in a shaded spot under the arundo cane in the corner of her exhibit during the heat of the day. Then she would always find time to scratch her neck on the warm sandstone boulders protecting a sycamore tree in the center of her exhibit.

As her age kept increasing, I was curious to find out where she stood in the record books for longevity. After getting feedback from both the North American and European Studbooks, it was shown that no Cape Buffalo had ever reached 30 years old. The previous record in North America was 29½, and before that age 22. For Europe, the previous record was 29¾, with the next oldest living Cape Buffalo being 27. Wheezy last September reached the elusive number of 30 and was given a bunch of her favorite golden rain tree browse to celebrate.

**PHOTOS OPPOSITE PAGE:**

(left) Cape Buffalo Wheezy has mellowed with age. Keepers now are able to apply fly spray to her whole body and scratch above her horns, neck and behind her fabulous ears.

(right) At age 31, Wheezy is believed to be the oldest recorded Cape Buffalo.

Photos by Eric Flossie, Tulsa Zoo

Showing no signs of slowing down, what do you do with possibly the oldest Cape Buffalo on record when the zoo's master plan is in full swing and it calls for a new mixed-species exhibit for white rhinos, hoofstock and birds to be placed where the buffalo exhibit is located? The answer: build her a whole new holding yard behind the African hoofstock barn. Before her new holding yard was built, Wheezy was slowly acclimated to expanded reserve holding yards and barn stalls. This would lead her toward her new holding yard location at her own pace. Her new holding yard comes complete with two shade structures, mud wallow and access to five indoor stalls. Her former exhibit had roughly 10,600 square feet. She now has access to 15,000 square feet of outside space.

I will admit that I was skeptical at first that she would react well to such a big change so late in life. That saying of "you can't teach an old dog new tricks" is totally overrated. Wheezy has been very active in her new home, as staff is always finding that she has spent the day and night in different parts of her enclosure. The extra movement is a big positive to help keep all of those old joints from getting stiff. She has also adapted well to her new shifting routine by coming into the barn when called for her grain in the morning and at the end of the day for her favorite produce, a sweet potato.

I have had the great pleasure to work with Wheezy for the past 12 years. We have shared many fantastic moments together; she is always the first animal I check on when I get to work. Our staff treats every day we get with her as the special gift it is. So please join me and the rest of the Tulsa Zoo staff by sending a very well-deserved happy birthday to Wheezy as she sets the bar even higher at 31 years old! 

## **Recipient of 2013 Bowling for Rhinos Conservation Resource Grant Announced**



**We are pleased to announce RhiNOremedy as the recipient of the 2013 Bowling for Rhinos Conservation Resource Grant. RhiNOremedy was founded in 2010 in the UK as an organization dedicated to curbing the demand for rhino horn through educational outreach. \$3,426.22 is being granted to fund a project called "Be Powerful", which will use animated media clips as well as printed materials to inspire the public to make responsible consumer choices. This project is being launched in partnership with the Chengdu Panda Base Education Centre in China. To learn more about RhiNOremedy please visit their website at [www.rhinoremedy.org](http://www.rhinoremedy.org). Thank you to all who made this funding possible by Bowling for Rhinos in 2012!**



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TRAINING TALES EDITORS

Jay Pratte, Henry Doorly Zoo  
Kim Kezer, Zoo New England  
Beth Stark-Posta, Toledo Zoo

# BOUNCING BACK

from  
**Behavior Breakdown**

By *Rebecca Kreh, Keeper II  
Zoo Atlanta, Atlanta, Georgia*

**Petie, a black-tailed prairie dog (*Cynomys ludovicianus*), arrived at Zoo Atlanta in March 2011. By July, Petie had been trained to kennel on cue, station on cue, and to allow a harness to be put on him so he could be walked outdoors for shows and encounters. However, between October and November the harnessing behavior broke down completely and even the station behavior became extremely unreliable. Since Petie seems to become agitated (vocalizing and sometimes biting) when held for more than a few seconds, wearing a harness and leash is a requirement for him to go on programs. Re-training this harnessing behavior became a top priority. While the behavior could have been re-trained without determining the cause of the breakdown we believed that knowing the cause would help to prevent it from happening again.**

Petie's harnessing behavior prior to the breakdown had the following topography: Prior to the behavior regression, Petie would enter a kennel from his enclosure and would be reinforced after the kennel door was closed. The kennel would be placed in front of the station and Petie would go to the station when the kennel door was opened. Here he would be reinforced with a large, highly preferred food item that took him about 30 seconds to eat so that the trainer would be able to put the harness on him while he ate. Once finished with the food item, Petie would be cued back into the kennel and reinforced once the door was closed.

The behavior breakdown began when he would occasionally take the reinforcement on the station after some extensive investigation (smelling, mouthing) or refuses it altogether, but after a few seconds in the kennel he would usually get back on track. A few weeks later Petie no longer accepted large reinforcers on the station at all; if one was offered he would refuse it and leave the station to explore the room in which this behavior took place (the mammal room). He would return to the station when cued but would leave again when the same food item was offered. During this time he continued to take small food items on the station if that item had never been used in conjunction with putting on his harness.

When this information was examined carefully, it was concluded that harnessing had become a punisher for accepting large food items on the station and so Petie had been accidentally trained to ignore large food items on the station.

After looking at the options for re-training the harness behavior it seemed that the

harness itself might be the issue and that changing the style of the harness might solve the problem. In the past, handmade figure-eight harnesses were used for small mammals in the Program Animals Department, but this style did not fit Petie well. Instead, a ferret harness that clipped under his neck and under his chest was chosen.



**Figure 1: Trainer clips on Petie's harness while he eats reinforcement. Photo: Briel Ritter**



**Figure 2: Petie now wears his harness reliably. Photo: Brie Ritter**

When securing this style of harness the trainer must put her fingers in the very small space between the prairie dog's face and his front limbs (which are holding the reinforcer). This usually resulted in pulling the food away from his mouth briefly. It seemed that by pulling the food away for a moment Petie had been trained not to take food while on the station. By this time Petie had slimmed down to a healthier weight, so the decision was made to try the figure-eight harness again. It allowed Petie to put his head through the harness in order to receive a reinforcer and then eat it undisturbed while the trainer clipped the harness on only under the chest (Figure 1).

Although a plan had been created to re-train the harnessing behavior, the station behavior had also broken down and instead of entering the crate, Petie would run around the mammal room when the kennel door opened. Relying on the theory of motivating operations (allowing free access to a desired situation or item until it is no longer highly desired due to over-exposure), Petie was given time each day to explore the mammal room. Additionally, it was decided that any socialization with trainers (a regular activity since his arrival due to the highly-social nature of prairie dogs, and something he seemed to favor) would also take place in that room to increase the opportunity to explore this space. Over the course of two days the exploration diminished from more than five minutes to less than two before he started to focus more on the trainer and less on his surroundings. The next step was to re-approximate his stationing behavior. It is important to point out, through the end of December and currently, we continue to socialize with him exclusively in the mammal room. This is conducted regularly in an attempt to maintain his focus on the trainer and training sessions instead of his surroundings.

Petie originally learned the station behavior reliably in three short sessions, but re-approximating it took significantly longer. Most of the sessions included three to five repetitions of going from kennel to station and back to kennel with varying reinforcers, from one small reinforcer to several small reinforcers to something large like a peanut or piece of shredded wheat. He continued to refuse all food items that had been used during the initial harness training (those that were found to be most valuable at the time) so these items were no longer used on the station. After about four weeks he was consistently taking a variety of new reinforcements on the station and the harness could then be reintroduced.

The new harness was introduced in January 2012 and turned out to be a great solution to the problem; within a week he was stationing, putting his head through

the closed loop of the harness and allowing it to be clipped on reliably. When the harnessing behavior was initially trained Petie would almost always be taken directly outdoors for a walk while wearing the harness. If the walk was in an area out of sight of the building that housed him, he grazed and calmly investigated the area. Due to time constraints, however, the walk was almost always just outside the building and often resulted in leash-pulling and attempts to get back inside. This likely contributed to the breakdown. In an effort to prevent the behavior from breaking down again he now wears the harness for all sessions including socializing. At the time of writing, Petie's harnessing behavior has been passed off to multiple trainers and animal handlers and he is again able to go on walks and encounters in outdoor and indoor areas (Figure 2). 

Dealing with this behavior breakdown was frustrating for the trainers involved, but it was important to recognize that it probably happened because Petie was frustrated by the original training process. This process has brought to light some very important training lessons:

- Consistent, detailed training logs are important. Without that information it might have taken much longer to identify the problem. Although the behavior probably could have been re-trained without that information, we believe that it would have taken longer and we may have seen repeated behavior breakdowns.
- What the trainer thinks is reinforcing for the animal may not always be what the animal finds reinforcing. It is important to observe and "listen to" what the animal's behavior is telling you. If the animal finds an item reinforcing, the behavior being reinforced will, by definition, increase.
- It is sometimes easier to change the situation to adapt to the animal than it is to change the animal to adapt to the situation.
- Go back as many steps as the animal needs, but take steps forward as quickly as your animal will allow so you can get back on track.
- Be persistent and don't lose hope. The animal can get back on track!

### **Comments by Beth Stark-Posta**

This paper is an excellent example of the importance and benefits of examining the motivation for behavior. Everything an animal does is motivated by either a need (i.e. a negative motivator such as hunger) or by an opportunity (i.e., a positive motivator such as access to a preferred area). When a trained behavior regresses, we must attempt to determine the cause, or motivation for the change in behavior. Once we know the motivation, we can make changes in our procedures to motivate the animal to perform the desired behavior. In this case, the trainers employed some problem-solving and attempted to read the prairie dog's body language and behavior to determine the motivation for the behavioral regression.

I would like to give big kudos to the trainers for taking responsibility for the behavioral regression and recognizing how their actions affected the animal's behavior and desire to complete the requested task. You are wonderful examples and models for our industry! You are an inspiration for the rest of us to look at our own actions and how they might affect the behavior and well-being of the animals in our care. Thank you for sharing your story and congratulations on your success!

**We want to read your Training Tale! Please submit your Training Tale to:  
Kim Kezer at [kkezer@zoonewengland.com](mailto:kkezer@zoonewengland.com) & Shane Good at [shane.good@aazk.org](mailto:shane.good@aazk.org)**

# Why Should We Form a Chapter of AAZK?



North Carolina Zoo's AAZK Chapter - Hosts of the 2013 AAZK National Conference

## What are the Benefits?

These two questions are commonly asked of the AAZK Board and Staff. We all know that Chapters, along with individual members, form the backbone of this Association. At last count, there were 96 local Chapters of this Association, collectively raising hundreds of thousands of dollars for conservation annually. Chapters enhance the vitality of the Association through their duty obligations and donations. Chapters also work hard to promote their conservation, education, networking, and professional development goals, as well as the similar goals of their zoological institutions and this Association. But what exactly do the members of these Chapters (You) get out of it? Isn't this just a lot of extra work? What are the benefits of operating a Chapter?

### The benefits of working as a 501-c-3 nonprofit

As a Chapter of AAZK, Inc., you are eligible for the same benefits this Association receives as a 501-c-3 nonprofit organization. These benefits may include:

- Tax exemptions
- Recognition by the public that your Chapter is legally recognized as a 501-c-3 organization lends credibility to your cause.
- Benefactors to your Chapter can receive tax deductions for their donations.
- Chapters may be eligible for nonprofit mailing rates.
- Chapters may be eligible for free public service announcements to promote their events.

To find out exactly how these benefits may apply to your Chapter, please feel free to contact the AAZK, Inc. Administrative Office for clarification. Also be aware that operating as a Chapter of this Association comes with certain obligations. Certain actions or inactions of a Chapter could actually influence the nonprofit status of the entire Association. Therefore, it is important that Chapters are aware of their responsibilities. Descriptions of these responsibilities can be found in the AAZK Operations

Manual which is located in the Members Section of our website, [aazk.org](http://aazk.org).

### The Benefits to the Chapter

Chapters consist of professional AAZK members who share common goals and objectives. Most commonly, these goals revolve around conservation, education, professional development, and networking. Chapters are powerful in their ability to raise funds.

Most zoological institutions recognize the significant contributions their Chapters make. Wise zoo directors realize that offering support and partnership to their local AAZK Chapters ultimately benefits the institution in attaining its own conservation and education goals. Ideally, the Chapter's and institution's goals complement one another, or are one and the same. Many zoos and aquariums highlight their local AAZK Chapter achievements in their Annual Reports and include Chapter conservation fundraising towards the organization's own conservation bottom line. It is no coincidence that many of our nation's top zoological institutions also serve as home to some of our top AAZK Chapters. AAZK Chapters, with strong support from the various departments of their institutions, are capable of making a significant impact in conservation and the zoo industry.

The collective members of an AAZK Chapter can accomplish much more than one person working alone. Utilizing the benefits of 501-c-3 nonprofit status and their institutional support, Chapters can develop into a multi-talented and diverse team. These Chapters make significant contributions to the conservation movement. In addition to the hundreds of thousands of dollars that Chapters raise annually for conservation projects, Chapter members also roll up their sleeves and actively participate in conservation projects. Examples from Chapter projects include beach and river

cleanups, habitat restoration, oil spill response, and volunteerism with organizations ranging from local wildlife rehabilitators to researchers of endangered wildlife in exotic locations.

Chapters enhance the conservation education movement as well. Zoo visitors recognize a keeper's knowledge and personal connection to wildlife. The credibility of AAZK Chapters and their members with the zoo visitor and general public presents us with great opportunities to educate. Chapter education projects have included maintaining zoo graphics, websites, interpretation programs, hosting conservation presentations and speakers, and even community-based programs, both local and abroad.

Chapters are also actively involved in promoting their own professional development endeavors. Chapters have been known to use their fundraising to send members to AAZK conferences. Many Chapters host professional workshops on skills such as enrichment, training, and hoof trimming, to name a few. Chapters also have powerful networking capabilities, hosting local and regional gatherings for keepers from multiple institutions. Chapters can also bid on hosting national AAZK conferences, a large task indeed, but one that is very rewarding.

I think one of the greatest benefits of operating a Chapter is the autonomy it presents to its members. An AAZK Chapter is something that belongs to its members. An AAZK Chapter provides its members the empowerment to achieve great things. Many keepers, especially in top-down management-style institutions, are not often given the empowerment to take on leadership roles. An AAZK Chapter presents its members an outlet for creative energy, self-regulation, decision making, and ownership in the goals and objectives of a cause.

Finally, Chapters can and should be fun. You're volunteering all of your time, so you better be having fun. As a Chapter,

make sure the business side of operations doesn't overshadow the fun factor. Be sure to make fun and camaraderie a major component of every Chapter function.

### **The Benefits to the Individual Members**

You might not realize it, but working as a Chapter member, especially as an officer, will help you develop important skills that will serve you throughout your career. You will be working as part of a diverse team and developing your team-building skills. You will learn various management skills that aren't always associated with zoo keepers. These skills include: writing an effective meeting agenda, managing a budget, strategic planning, project management, leadership, mentoring, coaching, and communication. Working within an AAZK Chapter tells your supervisors that you are a leader among your peers. These skills will in turn serve you as you become more active in AAZK committees, serve as Board Members, take on leadership positions in other organizations, or receive promotions throughout your career.

Many keepers start their careers thinking they can save the world, only to find they are swamped with the daily chores of zoo keeping. Chapters provide you with an outlet for your creative energy. You might not feel like you're changing the world when you're scrubbing a pool, shoveling manure, or cleaning a filter. However, the satisfaction that comes from supporting the conservation project of your choice, running your own project, or participating in a national event like Bowling for Rhinos is priceless.

If you're interested in starting an AAZK Chapter, please contact the AAZK, Inc. Administrative Office to find out how to get started. *Shane Good, AKF Editor* 



The Assiniboine Chapter participated in the Great Canadian Shoreline Clean Up in this photo from last fall.



The Greater Houston Chapter of AAZK - Winners of the Certificate of Merit for Zoo Keeper Education Award

## Portland Chapter

**This year in our BFR events the Portland Chapter raised over \$15,000! This was our best effort ever!**

It was accomplished through the usual sponsored bowling event and raffle as well as some new events. This summer we also collected funds when temporary tattoos were done for children at the zoo's 'Sunset at the Zoo' event. Keepers also volunteered to clear tables at Burgerville, a NW restaurant that utilizes locally-grown, healthy ingredients in their menu. Burgerville donates 5% of their profit to BFR the nights we volunteer.

This Spring, wild dogs also benefitted from our Chapter's fundraising efforts. The Painted Dog Conservation Comedy Night made ~\$12,000 for this important group.

In July, Chapter President Philip Fensterer hosted 'Cycle for Change' - a bike ride from Lincoln Park Zoo to the Milwaukee Zoo (see photo above). This event brought together over 25 cyclists and raised awareness for how cycling can help mitigate climate change.

Other Portland Chapter Officers for this year are Treasurer Michael Illig and Secretary Kate Robertson



## Greater Orlando AAZK Gets Dirty!

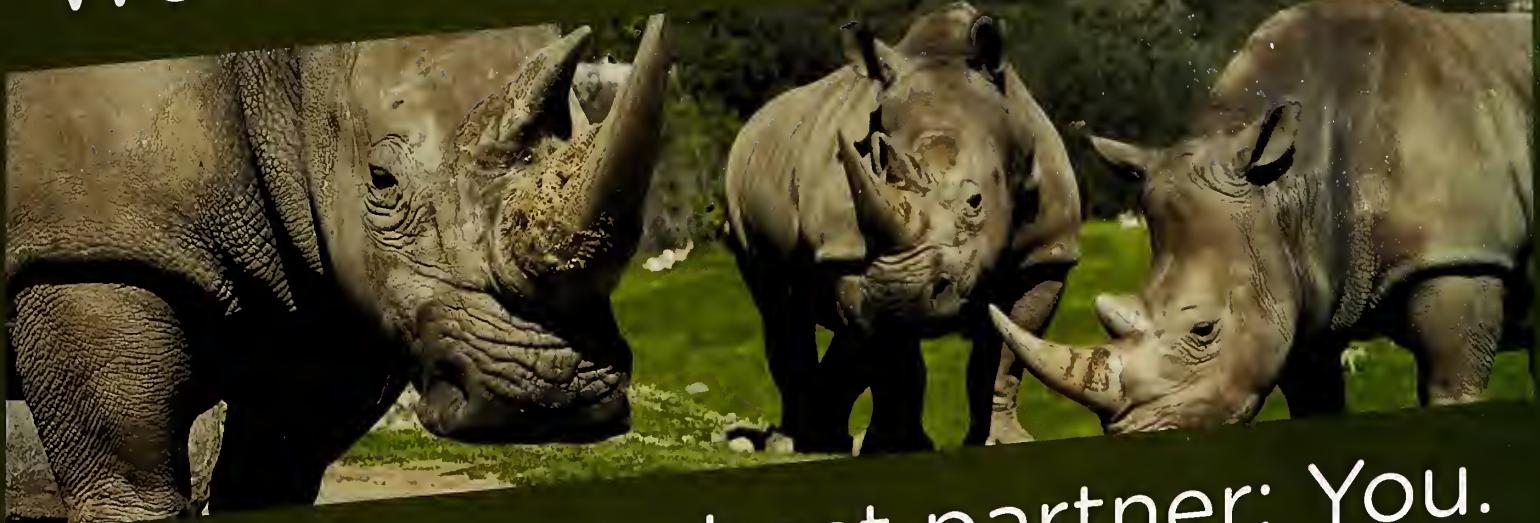


Earlier this year, the Greater Orlando AAZK Chapter collected gently-used items from their families, friends, and keepers from multiple institutions. Those items were then sold at a yard sale and we were able to raise over \$1,000. The Chapter then donated half the money to The Nature Conservancy to purchase native shrubs and bushes as part of the Trees for You and Me Campaign.

Once the weather conditions were right, The Nature Conservancy then invited us to the Disney Nature Preserve to put those plants in the ground! Chapter members and other members of the community braved the summer heat and fire ants to plant over 200 native plants. The wildlife couldn't even wait until we got them in the ground! Not only will those plants help with climate change, this particular area where we planted is a former cow pasture that The Nature Conservancy is trying to restore.

As a thank you to the Chapter, park officials gave us a guided buggy ride around the park where visitors aren't normally allowed. We saw endangered Florida scrub jays, a bald eagle, a swamp mallow (native flower related to a hibiscus), and lots of other great wildlife!

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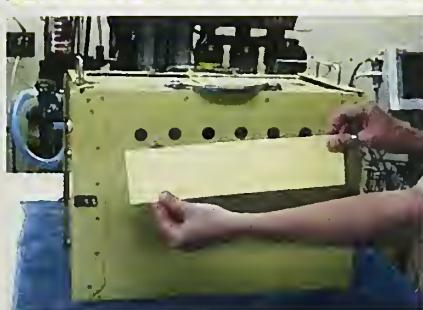
Membership with the American Association of Zoo Keepers includes a subscription to *Animal Keepers' Forum* and free or discounted admission to many zoos and aquariums in the U.S. and Canada.

To download an application or to apply online, please visit [AAZK.ORG](http://AAZK.ORG).

AAZK is a nonprofit volunteer organization (U.S. 501c3) made up of professional zoo keepers and other interested persons dedicated to professional animal care and conservation.



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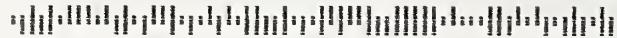


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